IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant :	Anja EITRICH et al.	**Confirmation No. 5886**
		Group Art Unit : 1616
Serial No. :	10/589,084	
		Examiner: Browe, David
I.A. Filed :	January 13, 2005	

For : COSMETIC AND DERMATOLOGICAL SELF-TANNING FORMULATIONS

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Commissioner for Patents
U.S. Patent and Trademark Office
Customer Service Window, Mail Stop Appeal Brief - Patents
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Sir:

This Appeal is from the Examiner's rejection of claims 34-56 set forth in the Final Office Action mailed from the U.S. Patent and Trademark Office on April 29, 2010.

A Notice of Appeal in response to the April 29, 2010 Final Office Action was filed on August 27, 2010. A request for a one-month extension of time is being filed concurrently herewith.

The requisite fee under 37 C.F.R. § 41.20(b)(2) for filing this Appeal Brief and the fee for a one-month extension of time are being paid concurrently herewith. The Patent and Trademark Office is hereby authorized to charge any additional fees that may be deemed necessary for maintaining the pendency of this application, including any appeal or extension of time fees that may be deemed necessary, to Deposit Account No. 19-0089.

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I. REAL PARTY IN INTEREST

The real party in interest in this appeal is Beiersdorf AG of Hamburg, Germany. The corresponding assignment was recorded in the U.S. Patent and Trademark Office on October 4, 2006 at REEL 018372, FRAME 0554.

II. RELATED APPEALS AND INTERFERENCES

Appellants, Appellants' representative or the Assignee are not aware of any prior and pending appeals, interferences or judicial proceedings which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

The status of the claims is as follows:

Claims 34-56 are pending in this application.

Claims 1-33 are cancelled.

Each of claims 34-56 is indicated as rejected in the Final Office Action mailed April 29, 2010.

The rejection of each of claims 34-56 is under appeal. Claims 34-56 involved in the appeal are reproduced in the Claims Appendix attached hereto.

IV. STATUS OF AMENDMENTS

No Amendment has been filed subsequent to the Final Office Action mailed April 29, 2010.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Claim 34

Independent claim 34 is drawn to a method of providing human skin with a natural tanned color. The method comprises applying to human skin, in an amount which is sufficient to provide a tanned color, a cosmetic or dermatological self-tanning composition which comprises dihydroxyacetone and more than 5 % by weight, based on the total weight of the composition, of glycerin.

See, e.g., page 5, lines 8-15 and page 26, lines 8-10 of the present specification.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The broad issue under consideration is:

Whether claims 34-56 are properly rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Stroud et al., U.S. Patent No. 6,231,837 (hereafter "STROUD"), in view of Fowler et al., U.S. Patent No. 6,391,290 (hereafter "FOWLER"), and in particular, whether the disclosures of STROUD and FOWLER are sufficient to establish a *prima facie* case of obviousness of the subject matter of claims 34-56.

VII. ARGUMENTS

A. Citation of Authority

Obviousness

The appropriate starting point for a determination of obviousness is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 U.S.P.Q. 459, 466 (1966):

> Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be

> ascertained and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined.

"A patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). The relevant question is "whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue." *Id.* "We must still be careful not to allow hindsight reconstruction of references to reach the claimed invention without any explanation as to how or why the references would be combined to produce the claimed invention." *Innogenetics, N.V. v. Abbott Labs.*, 512, F.3d 1363, 1374 n.3 (Fed. Cir. 2008).

"In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a *prima facie* case of obviousness. Only if that burden is met, does the burden of coming forward with evidence or argument shift to the applicant." *In re Rijckaert*, 9 F.3d, 1531, 1532 (Fed. Cir. 1993), citing *In re Fine*, 837 F.2d 1071, 1074,5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988).

"[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). "[T]he analysis that 'should be made explicit' refers not to the teachings in the prior art of a motivation to combine, but to the court's analysis." *Ball Aerosol & Specialty Container, Inc. v. Ltd. Brands, Inc.* 555 F.3d 984, 993 (Fed. Cir. 2009).

Further, it is also necessary for the Examiner to properly construe what an applied reference *fairly* teaches or discloses. See, e.g., *In re Fracalossi and Wajer*, 681 F.2d 792 (CCPA 1982).

When determining whether a claim is obvious, an Examiner must make "a searching comparison of the claimed invention - including all its limitations - with the teachings of the prior art." *In re Ochiai*, 71 F.3d 1565, 1572 (Fed. Cir. 1995).

B. Claims 34-56 Are Not Properly Rejected Under 35 U.S.C. 103(a) As Being Unpatentable Over STROUD In View Of FOWLER

1. Summary of Rejection

The rejection essentially alleges that the elements recited in instant claims 34-54 are (independently) disclosed by STROUD and that the remaining elements recited in claims 55 and 56 are rendered obvious by FOWLER.

2. Traverse

a. The generic disclosure of STROUD is extremely broad but its actual teaching is narrow

Appellants submit that the generic disclosure of STROUD is extremely broad and encompasses, for example, compositions comprising, *inter alia*, from about 0.5 % to about 20.0 % by weight of a self-tanning skin coloring agent subject to chemical instability (which is preferably dihydroxyacetone) and from about 0.1 % to about 15.0 % by weight of a polyol comprising a polyhydric compound having at least three hydroxyl groups and at least three carbon atoms (which is preferably D-sorbitol). See, e.g., the abstract of STROUD.

In other words, the generic disclosure of STROUD encompasses, for example, compositions which contain any self-tanning skin coloring agent subject to chemical instability and any polyol comprising a polyhydric compound having at least three hydroxyl groups and at least three carbon atoms in weight ratios of from 1 : 30 to 200 : 1.

A closer look at STROUD reveals that the actual teaching thereof is much narrower. In particular, while STROUD focuses on dihydroxyacetone as the self-tanning skin coloring agent subject to chemical instability, STROUD lists almost 20 suitable examples of polyols and types of polyols, i.e., *1,2,6-hexanetriol, isopropylidene glycerol, polyoxyethylene sorbitols, glycerin, diglycerin, erythritol, mannitol, xylitol, D and L-sorbitol, glucose, fructose, galactose, mannose, sucrose, lactose, trehalose, maltose and inositol* (see col. 7, lines 35- 42 and col. 15, lines 38-45 of STROUD). Accordingly, the majority of these (types of) polyols is represented by sugars and sugar alcohols.

In view of the foregoing facts it does not come as a surprise that the preferred polyols according to STROUD are sugar alcohols, i.e., D-sorbitol, D-mannitol and inositol, most preferably sorbitol (see, e.g., col. 7, lines 42-43, 53-54 and 64 of STROUD).

Sorbitol also is the only polyol that is employed in the exemplified compositions of STROUD. See also the reaction schemes depicted in columns 27 and 28 of STROUD (which also show sorbitol as the polyol).

Further, regarding the concentration of polyol in the compositions taught therein, STROUD teaches that the polyol is preferably present in concentrations from about 0.2 % to about 10 % by weight, more preferably from about 0.3 % to about 5.0 % by weight, more preferably still from about 0.4 % to about 3.0 % by weight and most preferably

from about 0.5 % to about 1.5 % by weight (see, e.g., col. 15, lines 48-53, col. 7, lines 53-57, col. 9, lines 12-13 of STROUD). In line with this statement, in the exemplified compositions of STROUD a sorbitol solution (presumably 70 % by weight of sorbitol as indicated in Table 3) is employed in a concentration of from 1.00 % to 5.00 % by weight (= 0.7 % to 3.5 % by weight of sorbitol).

It also is to be taken into account here that according to STROUD the stabilizing action of a polyol such as sorbitol on dihydroxyacetone is due to the formation of a cyclic ketal structure. See, e.g., col. 27, line 7 to col. 28, line 44 of STROUD in this regard.

Since the molecular weight of glycerin is about half the molecular weight of sorbitol it is reasonable to assume that only about 50 % of the amount of glycerin are needed for affording the same stabilizing effect as sorbitol. Since the molecular weight of glycerin is only about 50 % or less of the molecular weight of almost all of the polyols specifically mentioned in STROUD, including sorbitol, and glycerin has by far the lowest molecular weight of all of these polyols it is reasonable to assume that if glycerin is to be employed as stabilizing polyol in a composition according to STROUD the concentration thereof would be at the lower end of the preferred polyol concentration ranges taught by STROUD.

In view of the foregoing, it is not seen that STROUD provides an apparent reason for one of ordinary skill in the art to employ

(i) glycerin which, although mentioned once and among many other polyols in STROUD, clearly is not preferred and significantly differs from the most preferred polyol of STROUD (i.e., D-sorbitol)

(ii) in a concentration of more than 5 % by weight, i.e., in a concentration which,

although possible according to the general teaching of STROUD, is significantly higher than the most preferred concentrations taught by STROUD and also is significantly higher than the highest concentration of polyol employed in any of the exemplified compositions of STROUD (3.5 % by weight of sorbitol, i.e., a polyol having about twice the molecular weight of glycerol, see Table 3 of STROUD).

In this regard, Appellants further note that the fact that a claimed species or subgenus is encompassed by a prior art genus is not sufficient by itself to establish a *prima facie* case of obviousness. *In re Baird*, 16 F.3d 380, 382, 29 USPQ2d 1550, 1552 (Fed. Cir. 1994); *In re Jones*, 958 F.2d 347, 350, 21 USPQ2d 1941, 1943 (Fed. Cir. 1992). See also *In re Deuel*, 51 F.3d 1552, 1559, 34 USPQ2d 1210, 1215 (Fed. Cir. 1995).

b. FOWLER is unable to cure the deficiencies of STROUD

FOWLER is unable to cure the above-noted deficiencies of STROUD, even if one were to assume, *arguendo*, that one of ordinary skill in the art would have an apparent reason to combine the teachings of STROUD and FOWLER in the way contemplated by the Examiner. At any rate, the Examiner appears to have relied upon the disclosure of FOWLER only with respect to dependent claims 55 and 56.

In this regard, it is noted that what FOWLER has in common with the compositions of (commonly assigned) STROUD is that the compositions exemplified in FOWLER and in particular, those containing a polyol also contain not more than 3.5 % by weight of sorbitol (5.00 % by weight of a 70 % solution). Also, some of the

exemplified compositions of FOWLER contain glycerol, but in a concentration which is not higher than about 3 % by weight. Accordingly, FOWLER also fails to teach or suggest employing a polyol such as sorbitol or glycerin in a concentration which is significantly higher than 3 % and 3.5 %, respectively and thus reinforces the teaching of STROUD in this respect.

Appellants submit that for at least all of the foregoing reasons, STROUD in view of FOWLER fails to render obvious the subject matter of independent claim 34 (and the claims dependent therefrom).

c. Claims 35 and 49

Dependent claims 35 and 49 both recite (in the case of claim 49, *inter alia*) that the composition employed in the method of claim 34 comprises more than 8 % by weight of glycerin.

As pointed out above in section a., STROUD teaches that the polyol is preferably present in concentrations from about 0.2 % to about 10 % by weight, more preferably from about 0.3 % to about 5.0 % by weight, more preferably still from about 0.4 % to about 3.0 % by weight and most preferably from about 0.5 % to about 1.5 % by weight, and in the exemplified compositions of STROUD the polyol (sorbitol) having about twice the molecular weight of glycerin is employed in concentrations of from 0.7 % to 3.5 % by weight.

In view of the foregoing, it is not seen that STROUD provides an apparent reason for one of ordinary skill in the art to employ glycerin in a concentration of more than 8 % by weight, i.e., in a concentration which, although possible according to the general

teaching of STROUD, is significantly higher than the most preferred concentrations taught by STROUD and also is more than twice as high as the highest concentration of polyol (having about twice the molecular weight of glycerin) employed in any of the exemplified compositions of STROUD.

This is an additional reason (i.e., in addition to the reasons set forth above in sections a. and b.) why STROUD in view of FOWLER is unable to render obvious the subject matter of claims 35 and 49.

d. Claims 37 and 49

Dependent claims 37 and 49 recite (in the case of claim 49, *inter alia*) that the weight ratio of dihydroxyacetone and glycerin is smaller than 1:1.

In this regard it is noted that with respect to the concentration of dihydroxyacetone as the preferred self-tanning skin coloring agent subject to chemical instability STROUD teaches that about 4.0 % to about 6.0 % by weight should preferably be used (see, e.g., col. 10, lines 4-8 of STROUD). In accordance therewith, the concentration of dihydroxyacetone in the exemplified compositions of STROUD is between 4.00 % and 6.00 % by weight.

Further and as pointed out above, STROUD also teaches that the most preferred concentration range for the polyol is from about 0.5 % to about 1.5 % by weight (and a preferred, but less preferred concentration range is from about 0.4 % to about 3.0 % by weight). Accordingly, when employing concentrations of dihydroxyacetone and polyol within the respective preferred concentration ranges taught by STROUD one will inevitably employ a weight ratio of dihydroxyacetone and polyol (e.g., glycerin) which is

(significantly) higher than 1:1. This is confirmed by the compositions which are exemplified in STROUD: the weight ratio of dihydroxyacetone to polyol (D-sorbitol) in all of the exemplified compositions of STROUD is significantly higher than 1:1, i.e., at least 1:0.7 (about 1.4:1, see Table 3) and as high as (at least) 6:1 (see, e.g., Table 2 of STROUD, assuming a 100 % solution).

In this regard, it further is to be taken into account that according to STROUD the stabilizing action of a polyol such as sorbitol on dihydroxyacetone is due to the formation of a cyclic ketal structure. See, e.g., col. 27, line 7 to col. 28, line 44 of STROUD in this regard. Since the molecular weight of glycerin is about half the molecular weight of sorbitol, it is reasonable to assume that only about 50 % of the amount of glycerin are needed for affording the same stabilizing effect as sorbitol.

Thus, if one were to replace the sorbitol in the exemplified compositions of STROUD by (half the amount of) glycerin the weight ratio of dihydroxyacetone to glycerin would be from about 2.8:1 to as high as about 12:1.

In view of the foregoing facts it is not seen that one of ordinary skill in the art would be prompted by STROUD to employ a ratio of dihydroxyacetone and glycerin which is smaller than 1:1.

This is an additional reason (i.e., in addition to the reasons set forth above in sections a., b. and c.) why STROUD in view of FOWLER is unable to render obvious the subject matter of claims 37 and 49.

e. Claims 40 and 52

Dependent claims 40 and 52 recite that the weight ratio of dihydroxyacetone and glycerin is not higher than 2:3 (1:1.5).

In this regard Appellants note that with respect to the concentration of dihydroxyacetone as the preferred self-tanning skin coloring agent subject to chemical instability STROUD teaches that about 4.0 % to about 6.0 % by weight should preferably be used (see, e.g., col. 10, lines 4-8 of STROUD). In accordance therewith, the concentration of dihydroxyacetone in the exemplified compositions of STROUD is between 4.00 % and 6.00 % by weight.

Further and as pointed out above, STROUD also teaches that the most preferred concentration range for the polyol is from about 0.5 % to about 1.5 % by weight (and a preferred, but less preferred concentration range is from about 0.4 % to about 3.0 % by weight). Accordingly, when employing concentrations of dihydroxyacetone and polyol within the respective preferred concentration ranges taught by STROUD one will inevitably employ a weight ratio of dihydroxyacetone and polyol (e.g., glycerin) which is (significantly) higher than 1:1. This is confirmed by the compositions that are exemplified in STROUD: the weight ratio of dihydroxyacetone to polyol (D-sorbitol) in all of the exemplified compositions of STROUD is significantly higher than 1:1, i.e., at least 1:0.7 (about 1.4:1, see Table 3) and as high as (at least) 6:1 (see, e.g., Table 2 of STROUD, assuming a 100 % solution).

In this regard, it further is to be taken into account that according to STROUD the stabilizing action of a polyol such as sorbitol on dihydroxyacetone is due to the formation of a cyclic ketal structure. See, e.g., col. 27, line 7 to col. 28, line 44 of STROUD in this

regard. Since the molecular weight of glycerin is about half the molecular weight of sorbitol, it is reasonable to assume that only about 50 % of the amount of glycerin are needed for affording the same stabilizing effect as sorbitol.

Thus, if one were to replace the sorbitol in the exemplified compositions of STROUD by (half the amount of) glycerin the weight ratio of dihydroxyacetone to glycerin would be from about 2.8:1 to as high as about 12:1.

In view of the foregoing facts it is not seen that one of ordinary skill in the art would be prompted by STROUD to employ a ratio of dihydroxyacetone and glycerin which is smaller than 1:1, let alone smaller than 1:1.5.

This is an additional reason (i.e., in addition to the reasons set forth above in sections a. and b.) why STROUD in view of FOWLER is unable to render obvious the subject matter of claims 40 and 52.

VIII. CONCLUSION

Appellants respectfully submit that for at least all of the foregoing reasons, the Examiner has failed to establish a *prima facie* case of obviousness of the subject matter of claims 34-56 over STROUD in view of FOWLER. The Board is, therefore, respectfully requested to reverse the Final Rejection, and to allow the application to issue in its present form.

Respectfully submitted,
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CLAIMS APPENDIX

34. A method of providing human skin with a natural tanned color, wherein the method comprises applying to human skin, in an amount which is sufficient to provide a tanned color, a cosmetic or dermatological self-tanning composition which comprises dihydroxyacetone and more than 5 % by weight, based on a total weight of the composition, of glycerin.

35. The method of claim 34, wherein the composition comprises more than 8 % by weight of glycerin.

36. The method of claim 34, wherein the composition comprises not more than 12 % by weight of glycerin.

37. The method of claim 34, wherein a weight ratio of dihydroxyacetone and glycerin is smaller than 1 : 1.

38. The method of claim 37, wherein the weight ratio is not higher than 0.9 : 1.

39. The method of claim 38, wherein the weight ratio is at least 0.05 : 1.

40. The method of claim 37, wherein the weight ratio is not higher than 2:3.

41. The method of claim 37, wherein the weight ratio is at least 1 : 4.5.

42. The method of claim 34, wherein the composition further comprises one or more O/W emulsifiers.

43. The method of clam 42, wherein the one or more O/W emulsifiers comprise at least one emulsifier selected from polyethoxylated esters of fatty acids having a chain length of from 10 to 30 carbon atoms and a degree of ethoxylation of from 5 to 100 and esters of saturated, unbranched fatty acids with monomethoxylated glucose or polyglycerols.

44. The method of claim 43, wherein the one or more O/W emulsifiers comprise at least one of a polyethoxylated ester of stearic acid and a polyethoxylated castor oil.

45. The method of clam 42, wherein the one or more O/W emulsifiers comprise at least one emulsifier selected from sodium cetearyl sulfate, glyceryl stearate, glyceryl isostearate, glyceryl diisostearate, glyceryl oleate, glyceryl palmitate, glyceryl myristate, glyceryl lanolate and glyceryl laurate.

46. The method of claim 42, wherein the composition further comprises at least one coemulsifier selected from fatty alcohols having a chain length of from 10 to 40 carbon atoms.

47. The method of claim 46, wherein the at least one coemulsifier comprises cetearyl alcohol.

48. The method of claim 34, wherein the composition comprises less than 5 % by weight of one or more UV filter substances, based on the total weight of the composition.

49. The method of claim 34, wherein the composition comprises more than 8 % by weight of glycerin, a weight ratio of dihydroxyacetone and glycerin is smaller than 1 : 1, and the composition further comprises one or more O/W emulsifiers selected from polyethoxylated esters of fatty acids having a chain length of from 10 to 30 carbon atoms and a degree of ethoxylation of from 5 to 100, esters of saturated, unbranched fatty acids with monomethoxylated glucose or polyglycerols, and sodium cetearyl sulfate, glyceryl stearate, glyceryl isostearate, glyceryl diisostearate, glyceryl oleate, glyceryl palmitate, glyceryl myristate, glyceryl lanolate and glyceryl laurate.

50. The method of claim 47, wherein the composition further comprises at least one coemulsifier selected from fatty alcohols having a chain length of from 10 to 40 carbon atoms.

51. The method of claim 49, wherein the composition comprises not more than 12 % by weight of glycerin.

52. The method of claim 47, wherein the weight ratio is not higher than 2 : 3.

53. The method of claim 52, wherein the weight ratio is at least 1 : 4.5.

54. The method of claim 34, wherein the composition is present as an oil-in-water emulsion.

55. The method of claim 54, wherein a droplet size of an inner phase of the emulsion is larger than 500 nm.

56. The method of claim 55, wherein the droplet size is larger than 1,000 nm.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.